

Peer Review

# Review of: "Negative Capacitance Effect at the Interface Between Si Wafers with Undulating Surfaces"

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The authors have presented work on “Negative Capacitance Effect at the Interface between Si Wafers with Undulating Surfaces.” It is exciting work. I have some suggestions/questions before considering it.

1. The abstract must contain the key findings of the study.
2. What are the possible mechanisms that could lead to negative capacitance at the Si interface?
3. Explain how electrostatic fringing fields at an undulating interface can modify the local capacitance behavior.
4. What are the challenges in isolating the negative capacitance effect from parasitic capacitances in experimental measurements?
5. What are the potential applications of this effect in energy storage and dielectric engineering?
6. Add the future scope of the study.
7. To enhance the breadth and relevance of the device for a wider readership, I suggest including some recent references to the manuscript. These references can provide additional insights and context for your research.

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<https://doi.org/10.1016/j.energy.2024.132032>

10.1109/ACCESS.2024.3501418

10.1109/ACCESS.2024.3455559

10.1109/ACCESS.2024.3350779

10.1109/ACCESS.2024.3392621

10.1109/ACCESS.2024.3388504

10.1109/OJNANO.2024.3408845

<https://doi.org/10.1007/s12633-022-01790-9>

## **Declarations**

**Potential competing interests:** No potential competing interests to declare.